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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

NGUYEN, T

ART UNIT

PAPER NUMBER

2663

DATE MAILED:

10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/835,649

Applicant(s)
Robert T. BAUM et al.

Examiner
Toan Nguyen

Art Unit
2663



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Apr 17, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-45 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration

5) ☒ Claim(s) 18-24 is/are allowed.

6) ☒ Claim(s) 1-6, 9, 12-17, 25, 31-40, 42, 43, and 45 is/are rejected.

7) ☒ Claim(s) 7, 8, 10, 11, 26-30, 41, and 44 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

- 1. ☐ Certified copies of the priority documents have been received.
- 2. ☐ Certified copies of the priority documents have been received in Application No. _____
- 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Application/Control Number: 09/835,649

Art Unit: 2663

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9 line 9, "the customer premises" has no antecedent basis.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 6, and 12-16 are rejected under U.S.C. 102(b) as being anticipated by Curry et al (U.S. Patent 6,078,582).

For claims 1, 6, 12 and 16, Curry et al disclose internet long distance telephone service, comprising the steps:

determining unused bandwidth on a common link of an access data network, carrying

subscriber traffic and over which the first server and the at least one second server communicate; and transmitting content data stored on the first server to the at least one second server substantially on the determined unused bandwidth (see figure 10B, col. 13 lines 40-52).

X For claims 2 and 4, Curry et al disclose at least one second server comprises a server located in a vertical services domain proximate to at least one end user terminal (see figure 6, col. 11 line 66 to col. 12 line 7).

For claim 13, Curry et al disclose the steps of determining unused bandwidth and transmitting content data utilize priority and queuing in at least one node of the access data network, to implement a minimum bandwidth and provide additional bandwidth as available on the common link, for the transmitting of the content data over the common link (col. 13 lines 3-7, col. 13 line 40 to col. 14 line 8).

X For claims 14-15, Curry et al disclose a congestion mechanism comprises Transmission Control Protocol (TCP) (col. 1 lines 21-23).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to

the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3, 5, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sistanizadeh et al (U.S. Patent 5,790,548) in view of Curry et al (U.S. Patent 6,078,582).

For claims 3, Curry et al do not disclose the vertical services domain is located in a central office that provided Digital Subscriber Line (DSL) service to the at least one end user terminal. Sistanizadeh et al from the same or similar field of endeavor teach the vertical services domain is located in a central office that provided Digital Subscriber Line (DSL) service to the at least one end user terminal (see figure 3, col. 5 lines 38-40). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the combined universal access multimedia data network as taught by Sistanizadeh et al in internet long distance telephone service of Curry et al. The motivation for using the combined universal access multimedia data network as taught by Sistanizadeh et al in internet long distance telephone service of Curry et al being that the high speed data service is transported from the customer premises to the serving central office over qualifying copper loops presently used to deliver POTS service (col. 7 lines 21-23).

For claim 5, Sistanizadeh et al disclose further the central content server is located in a hub site (col. 16 lines 8-16).

For claim 17, Sistanizadeh et al disclose the common link of the network also carries logical circuits for wide area data communications of a plurality end user terminals (see figure 4, col. 6 lines 6-8).

6. Claim 9, 25, 31-40, 42-43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al (U.S. Patent 6,078,582) in view of Sistanizadeh et al (U.S. Patent

5,790,548) further in view of Araujo et al (U.S. Patent 6,118,785).

For claim 9, Sistanizadeh et al in view of Curry et al disclose universal access multimedia data network, comprising the step of:

provisioning a logical communication circuit extending from the at least one end user terminal through the network to a communication access node coupled to a first network domain, at least a portion of the logical communication circuit extending through the common link, wherein the provisioning comprises defining the logical communication circuit in terms of a layer-2 protocol defining switched connectivity through the network (see figure 3, col. 5 lines 50-52, and col. 7 lines 45-47);

forwarding each detected transmission of a second type, different from the first transmission type, to a second network domain logically separate from the first network domain, wherein the at least one second server is coupled to the second network domain to receive at least one transmission of a second type for control of the step of transmitting the content data stored on the at least one second server to at least one end user terminal proximate to the at least one second server (col. 7 lines 39-42). Sistanizadeh et al in view of Curry et al do not disclose at the data switch, examining communicated information in transmission from the customer premises, for a protocol encapsulated within said layer-2 protocol, to distinguish transmission types; and forwarding each detected transmission of a first transmission type from the data switch to the communication access node over the logical communication circuit defined in term of the layer-2 protocol. Araujo et al from the same or similar field of endeavor teach at the data switch, examining communicated information in transmission from the customer premises, for a protocol encapsulated within said layer-2 protocol, to distinguish transmission types (see figure 6, col. 9

lines 28-29); and forwarding each detected transmission of a first transmission type from the data switch to the communication access node over the logical communication circuit defined in term of the layer-2 protocol (col. 9 lines 18-27). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the combined point-to-point protocol with a signaling channel as taught by Araujo et al in internet long distance telephone service of Curry et al. The motivation for using the combined point-to-point protocol with a signaling channel as taught by Araujo et al in internet long distance telephone service of Curry et al being that it provides a minimal encapsulation for PPP data packets sent between two L2TP endpoints (see figure 6, col. 9 lines 28-34).

For claims 25, 39 and 45, Sistanizadeh et al disclose universal access multimedia data network, comprising:

- a communication access node coupled to a first network domain (see figure 3, col. 5 lines 50-52);

- a central content server for storing content data coupled to the communication access node (col. 8 lines 8-14);

- a plurality of digital subscriber line transceivers coupled to network ends of subscribers lines, for data communication with transceivers coupled to customer premises ends of respective subscriber lines (col. 5 lines 38-43);

- an access switch coupled for data communication with the digital subscriber line transceivers, for receiving data from customer premises equipment via respective ones of the digital subscriber line transceivers and for supplying data intended for transmission to predetermined customer premises equipment to the respective ones of the digital subscriber line

transceivers (see figure 4, col. 6 lines 4-8);

a high-speed data link between the access switch and the communication node (col. 7 lines 21-23);

a layer-2 protocol logical communication circuit provisioned through the access switch and the high-speed data link for each subscriber line, wherein each logical communication circuit is provisioned to extend from a respective customer premises to the communication access node (col. 7 lines 45-47);

a second network domain coupled locally to the access switch (see figure 4B, col. 7 lines 1-3);

a local content server for storing content data coupled to the second network domain (col. 7 lines 1-10). Sistanizadeh et al disclose further in claim 39, a vertical services coupled locally to the access switch (see figure 14, col. 17 lines 26-38); and network hub data switch connected to a coupling to the wide area internetwork (see figure 14, col. 18 lines 9-25). Sistanizadeh et al do not disclose a logical communication circuit for content distribution between the central content server and the local content server provisioned through the access switch and the high-speed data link, the provisioning of the logical communication circuit for content distribution enabling communication of content data between the communication access node and the access switch over bandwidth unused by traffic on the layer-2 protocol logical communication circuits. Araujo et al in view of Curry et al from the same or similar field of endeavor teach the provisioning of the logical communication circuit for content distribution enabling communication of content data between the communication access node and the access switch on the layer-2 protocol logical communication circuits (col. 9 lines 18-27), and over bandwidth unused by traffic as taught by

Curry et al (col. 13 lines 40-52). Araujo et al further teach in claim 39, a multiplexer providing data communications coupling between the ATUs and the access switch (see figure 1, col. 6 lines 28-30). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the combined point-to-point protocol with a signaling channel as taught Araujo et al in universal access multimedia data network of Sistanizadeh et al. The motivation for using the combined point-to-point protocol with a signaling channel as taught Araujo et al in universal access multimedia data network of Sistanizadeh et al being that LCP negotiation is used to automatically agree upon the encapsulation format options, handle varying limits on sizes of packets, detect a loop-back link and other common misconfiguration errors, and terminate the link (col. 15 lines 61-65).

For claim 31, Sistanizadeh et al disclose a router (col. 5 line 49).

For claim 32, Curry et al disclose unspecified bit rate service thereto with an associated minimum service guarantee (col. 13 lines 40-52).

For claim 33, Sistanizadeh et al disclose a virtual circuit (see figure 11, col. 19 lines 48-53).

For claim 34, Sistanizadeh et al disclose an Asynchronous Transfer Mode (ATM) switch (col. 20 lines 14-19).

For claim 35, Sistanizadeh et al disclose the digital subscriber line transceivers comprise asymmetrical digital subscriber line (ADSL) terminal units (ATUs) (see figure 4A, col. 7 lines 13-20); and Araujo et al disclose a multiplexer providing data communications coupling between the ATUs and the access switch (see figure 1, col. 6 lines 28-30).

For claims 36-38, Sistanizadeh et al disclose at least one of the digital subscriber line

transceivers is adapted for communication over an optical link (see figure 3).

For claim 40, Sistanizadeh et al disclose an Asynchronous Transfer Mode (ATM) permanent virtual circuit (col. 20 lines 14-19).

For claims 42-43, Curry et al disclose the access switch and the hub data switch defines a priority for the transport of content data, and also implements a minimum guaranteed bandwidth for the logical circuit within the high-speed data link (col. 13 lines 3-7, col. 13 line 40 to col. 14 line 8).

7. Claim 18-24 are allowed.

REASONS FOR ALLOWANCE

8. The following is an examiner's statement of reasons for allowance:

Regarding to claim 18, the prior art fails to teach a combination of the steps of:

programming code, carried by the at least one machine readable medium, for execution by at least one computer, wherein the programming code comprises:

a congestion mechanism for determining unused bandwidth on a portion of a common link of an access data network, carrying subscriber traffic and over which the first server and the at least one second server communicate; and

a first transmitting mechanism for causing transmission of content data stored on the first server to the at least one second server substantially on the determined unused bandwidth, in the specific combination as recite in claim 18.

Objection To Claims, Allowable Subject Matter

9. Claims 7-8, 10-11, 26-30, 41, and 44 are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,078,582 to Cury et al, discloses Internet Long Distance Telephone Service.

U.S. Patent 6,118,785 to Araujo et al, discloses Point-To-Point Protocol With A Signaling Channel.

U.S. Patent 5,915,008 to Dulman, discloses System And Method For Changing Advanced Intelligent Network Services From Customer Premises Equipment.

U.S. Patent 6,108,350 to Araujo et al, discloses Method And Apparatus For Detecting The Protocol Used By An End Station And Negotiating A Protocol Used By The Endpoint.

Contact Information

11. Any response to this action should be mailed to:
Assistant Commissioner for Patents
Washington, D.C. 20231
12. Hand-delivered responses should be brought to Crystal Park II,

2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

13. Any inquiry concerning this communication or early communications should be directed to Toan Nguyen whose telephone number is (703) 305-0140. He can be reached Monday through Friday from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached at (703) 308-5340. The fax phone number for this Group is (703)-872-9314.

Any inquiry of a general nature or relating to the status of this application should be direct to the Group receptionist whose telephone number is (703) 305-9600.

TN
T.N.



DANG TON
PRIMARY EXAMINER